

**TRIAZINE IMMUNOASSAY (IA)**  
**COMPLIANCE SAMPLING COLLECTION GUIDE**

Kansas Public Water Supply Systems  
using the  
Kansas Health and Environmental Laboratories



Prepared by  
Kansas Department of Health and Environment  
Bureau of Water  
Public Water Supply Section

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## TRIAZINE IMMUNOASSAY (IA) SAMPLING

Triazine immunoassay (IA) compliance samples are used to satisfy the requirement of Synthetic Organic Contaminant (SOC) monitoring for groundwater systems. SOC's are also known as pesticides.

SOC monitoring is part of the Phase II/V Rules. SOC monitoring requirements are stated in the Code of Federal Regulations 40 CFR 141.24, and can be found online at the Kansas Department of Health and Environment, Public Water Supply Section website <http://www.kdheks.gov/pws/index.html>.

The purpose of this document is to provide a quick guide for collecting triazine immunoassay samples. A Phase II/V Rules Survival Guide is available online at the KDHE, Public Water Supply Section website <http://www.kdheks.gov/pws/index.html>, and is a more extensive guide on all facets of the Phase II/V Rules.

On the result report for an IA sample, atrazine is reported. However, the analysis of the sample does not measure atrazine directly, but rather tests for the presence of chemicals from the triazine family which includes atrazine.

If an IA sample indicates a result of atrazine at a level  $\geq 0.45$  ug/L, a sample collection for a full SOC analysis, aka pesticide scan, will be required to determine what substances the IA sample was detecting. If required to collect a pesticide sample, please refer to the compliance sample collection guide titled *Synthetic Organic Contaminants (SOC) Samples a.k.a. Pesticide and Atrazine Sample* for information on pesticide scan sampling.

The Kansas Health and Environmental Laboratories (KHEL) is part of the Division of Environment under the Kansas Department of Health and Environment (KDHE).

The KHEL fee is \$25 for analyzing triazine immunoassay (IA) compliance samples.

### What is in an IA Sample Kit from KHEL?

- Cooler shipping box
- One 20 cc clear glass bottle
- Ice packs
- Green return shipping label
- Sample collection procedure sheet
- Sample submission form

An IA sample kit and a volatile organic contaminant (VOC) sample kit are usually shipped from KHEL together in the same box. When this is the case, the following line will appear on the sample submission form under the heading Organic Analytical Tests Requested:

VF (bottle ID number) Volatile Organics – EPA method 524.2

If the sample kit received also contains a VOC sample kit, please refer to the compliance sample collection guide titled Volatile Organic Chemicals (VOC) Samples for information on VOC sampling.

Figure 1-1A is a picture of what is contained in an IA sample kit from KHEL. A barcode label on the sample collection bottle will have the system's KHEL account number and the bottle identification number. The green return shipping label is to be placed on the outside of the package when ready to ship the sample back to KHEL. The white sheet is the sample submission form that must be completed for each IA sample.

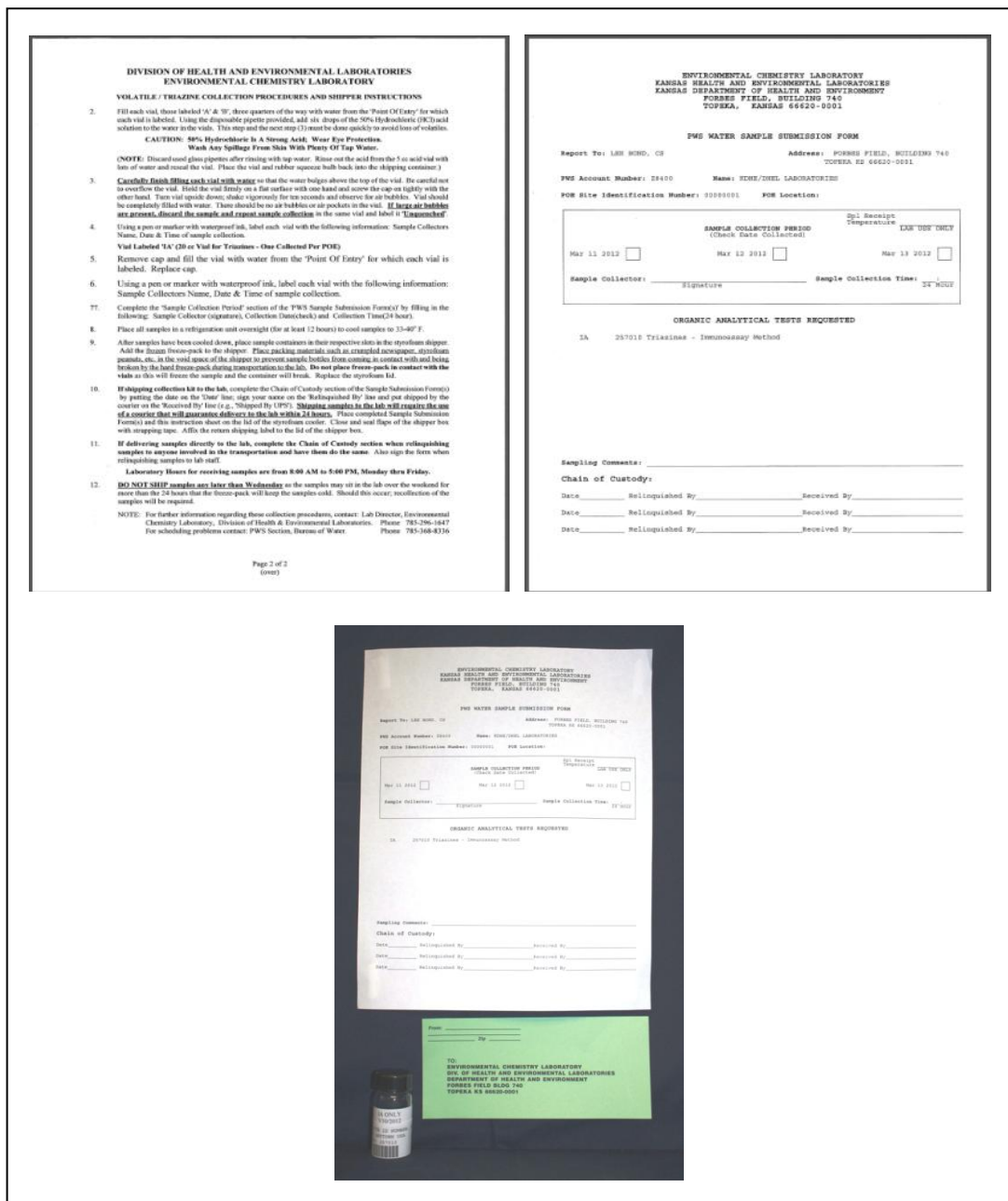


Figure 1-1A. What Is Included In an IA Sample Kit

Fig 2-IA indicates a Triazine Immunoassay (IA) Sample Submission Form

<b>ENVIRONMENTAL CHEMISTRY LABORATORY KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT FORBES FIELD, BUILDING 740 TOPEKA, KANSAS 66620-0001</b>		
<b>PWS WATER SAMPLE SUBMISSION FORM</b>		
<b>Report To:</b> LEE BOND, CS	<b>Address:</b> FORBES FIELD, BUILDING 740 TOPEKA KS 66620-0001	
<b>PWS Account Number:</b> Z8400	<b>Name:</b> KDHE/DHEL LABORATORIES	
<b>POE Site Identification Number:</b> 00000001	<b>POE Location:</b>	

<b>SAMPLE COLLECTION PERIOD</b> (Check Date Collected)		Spl Receipt Temperature <b>LAB USE ONLY</b>
Mar 11 2012 <input type="checkbox"/>	Mar 12 2012 <input type="checkbox"/>	Mar 13 2012 <input type="checkbox"/>
<b>Sample Collector:</b> _____ Signature		<b>Sample Collection Time:</b> _____ 24 Hour

**ORGANIC ANALYTICAL TESTS REQUESTED**

IA      257010 Triazines - Immunoassay Method

**Sampling Comments:** \_\_\_\_\_

**Chain of Custody:**

Date _____	Relinquished By _____	Received By _____
Date _____	Relinquished By _____	Received By _____
Date _____	Relinquished By _____	Received By _____

Figure 2-IA. Example of an IA Sample Submission Form

## THE IA SAMPLE SUBMISSION FORM IN DETAIL

Figure 3-IA indicates the header of the form which indicates where the kit came from, and that the form is for use in submitting a public water supply sample. The address in the header is the address of KHEL and will match the address on the green return shipping label that came with the sample kit.

ENVIRONMENTAL CHEMISTRY LABORATORY KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT FORBES FIELD, BUILDING 740 TOPEKA, KANSAS 66620-0001  PWS WATER SAMPLE SUBMISSION FORM
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Figure 3-IA. Header of the Sample Submission Form

Figure 4-IA indicates the system's address information printed on the form.

Report To: LEE BOND, CS	Address: FORBES FIELD, BUILDING 740 TOPEKA KS 66620-0001
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Figure 4-IA. System Address on the Sample Submission Form

Figure 5-IA has been highlighted to point out specific areas on the form.

The part highlighted in green indicates the system's KHEL account number.

The part highlighted in purple is the point-of-entry (POE) identification number where the sample must be collected. The POE Site ID number should match a KDHE identification tag number that is physically at the site where the sample should be collected.

The part highlighted in yellow has often caused confusion for samplers. It is the Local Name for the collection site. In our data base, systems have the option of giving the POE site a "Local Name," and printed on the form in this location (if anything) is whatever the system requested as the Local Name.

PWS Account Number: 26400	Name: KDHE/DHEL LABORATORIES
POE Site Identification Number: 00000001	POE Location:

Figure 5-IA. System KHEL Account Number and Collection Site ID on the Sample Submission Form

Figure 6-IA indicates the section that must be filled out for each IA sample. Fill out the form completely and neatly! If there is a problem with the sample, KHEL personnel will call the sample collector and try to resolve it. However, if they are unable to make contact the sample may be rejected and the system will have to re-collect the sample.

Figure 6-IA indicates that the form presents the choice of three different dates for sample collection. Check the correct box for the date the sample is collected. If unable to collect on one of the three dates printed on the form, call the KDHE Public Water Supply Section at 785-368-8336 to see if it's possible for the scheduled collection dates to be changed. The gray highlighted area is where the sample collector should write their name.

The image shows a section of a sample submission form. At the top right, it says 'Spl Receipt Temperature' and 'LAB USE ONLY'. In the center, it says 'SAMPLE COLLECTION PERIOD (Check Date Collected)'. Below this, there are three dates with checkboxes: 'Mar 11 2012', 'Mar 12 2012', and 'Mar 13 2012'. At the bottom left, it says 'Sample Collector:' followed by a gray rectangular box for a signature, with the word 'Signature' written below it. To the right of the signature box, it says 'Sample Collection Time:' followed by a line for minutes and '24 HOUR'.

Figure 6-IA. Three Different Choices for Sample Collection Dates  
On the Sample Submission Form

Figure 7-IA has added highlighting. This part of the form lists the bottle ID number and the method that will be used to analyze the sample.

The part highlighted in blue is the identification number of the bottle. The bottle ID number on the container should match the bottle ID number on the sample submission form. If they don't match, call KHEL at 785-296-1620 and notify them of the situation.

The image shows a section of a sample submission form titled 'ORGANIC ANALYTICAL TESTS REQUESTED'. Below the title, there is a line with 'IA' on the left, a blue highlighted box containing the number '257010', and the text 'Triazines - Immunoassay Method'.

Figure 7-IA. Analysis Method and Bottle ID on the Sample Submission Form

Figure 8-IA indicates that the form has space for sample collection notes. If the sample collector has any comments about the sample that they feel is important for the analysts at KHEL to know, they should write comments on the line labeled, “Sampling Comments.” The “Chain of Custody” lines only need to be used if the sample is passing from the sample collector to someone other than the courier service that will be delivering the sample to KHEL.

Sampling Comments: _____		
Chain of Custody:		
Date _____	Relinquished By _____	Received By _____
Date _____	Relinquished By _____	Received By _____
Date _____	Relinquished By _____	Received By _____

Figure 8-IA. Chain of Custody Section on the Sample Submission Form

## COLLECTING AND SHIPPING THE IA SAMPLE

IA samples must be chilled before shipping. Before collecting an IA sample, put the ice packs in the freezer. After collecting the IA sample, immediately place the bottle in the refrigerator to chill overnight. Make sure the sample does not freeze or the bottle will break.

The sample kit instructions will state that the samples must be collected on one of three dates that fall on a Sunday, Monday or Tuesday. The collected samples must reach KHEL no later than Wednesday the same week with only 24 hours in transit. Many systems pay for additional courier services (next day or priority shipping) to ensure their sample will be delivered on time. If unable to collect on one of the dates printed on the sample submission form, call KDHE, Bureau of Water, Public Water Supply Section at 785-368-8336 to see if it’s possible for the scheduled collection dates to be changed.

### **Collecting the IA Sample**

Read through the sample collection instructions before collecting. For questions or concerns about the sample collection process, call KHEL at 785-296-1620 for assistance.

IA compliance monitoring samples are collected from finished water. Listed on the sample submission form is the POE site ID number from where the sample needs to be collected. At the site where the sample should be collected, there should be a KDHE ID tag with a number that matches the POE Site ID number on the form.

### **Shipping the IA sample**

Place the sample and the freezer packs into the cooler in the shipping box. Place the completed sample submission form on top of the cooler lid. Tape the box shut. Secure the green return shipping label to the package. The sample must arrive at KHEL by Wednesday with only 24

hours in transit. Many systems pay for additional courier service (next day or priority shipping) to ensure their sample will be delivered on time.

If the sample container leaks it could arrive at KHEL empty or with not enough sample left to analyze. Many couriers will consider a wet package undeliverable and will discard it. Either of these scenarios would require the system to re-collect the sample.

### **SUMMARY OF IA SAMPLING**

- Upon receipt of the sample kit, open and review the appointed sample collection date.
- Check that bottle ID numbers, KHEL account number, and collection site ID numbers are correct.
- Place the ice packs in the freezer.
- Follow the sample collection instructions included with the sample kit.
- Fill out the sample submission form neatly and completely.
- Immediately after collecting the sample, place it in the refrigerator to chill overnight.
- Include the ice packs and the sample submission form in the package with the sample.
- Paying for additional courier services (overnight or priority shipping) may be necessary to ensure the sample is delivered to KHEL on time.
- Calling KDHE with questions or concerns you may have is highly encouraged.

For questions about your IA sample kit or the sample collection process, call KHEL at 785-296-1620.

For questions about your IA compliance or compliance monitoring schedule, call KDHE's Bureau of Water, Public Water Supply Section at 785-368-8336.